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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,036	03/17/2004	Charles J. Davidson	S63.2H-12021-US01	3459
490 7590 05/11/2007 VIDAS, ARRETT & STEINKRAUS, P.A. 6109 BLUE CIRCLE DRIVE SUITE 2000 MINNETONKA, MN 55343-9185			EXAMINER PELLEGRINO, BRIAN E	
			ART UNIT 3738	PAPER NUMBER
			MAIL DATE 05/11/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary

Application No.

10/802,036

Applicant(s)

DAVIDSON ET AL.

Examiner

Brian E. Pellegrino

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 10-20 is/are rejected.
- 7) ☒ Claim(s) 8 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :8/11/04, 9/24/04, 10/16/06, 12/18/06.

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Specie 15 in the reply filed on 2/5/07 is acknowledged. The traversal is on the ground(s) that several other species should be grouped with elected specie 15. This is not found persuasive because the pattern of the stent was the basis for restriction. Applicant argues the openings of the different species had a similar feature. However, it could be said that the patterns could be broken down more into subspecies because there are different connectors in these other nonelected species, for example some one is curved, another is straight and the elected is looped. Thus, it is believed they should not be grouped together.

The requirement is still deemed proper and is therefore made FINAL.

Information Disclosure Statement

Applicant should note that the large number of references in the attached IDS have been considered by the examiner in the same manner as other documents in Office search files are considered by the examiner while conducting a search of the prior art in a proper field of search. **See MPEP 609.05(b)**. Applicant is requested to point out any particular references in the IDS which they believe may be of particular relevance to the instant claimed invention in response to this office action.

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,2,4,5 are rejected under 35 U.S.C. 102(e) as being anticipated by Ouriel et al. (2004/0117003). Ouriel et al. show (Fig. 9) a bifurcation stent **402** with a wall **480** defined with a pattern of support structure **482**. It can be seen that the wall is interrupted by a branch structure **452** and is formed of expandable stents, paragraph 40. The branch structure is formed of first and second rings **470**, **472** that are concentric with one another and are disposed perpendicular to the longitudinal axis of the main body **424**. It can be construed that the larger portion of the branch provides an auxiliary access opening for branch structures or vessels. It can also be construed the branch structure contains a transition ring **474**.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16,18,19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ouriel et al. (2004/0117003). Ouriel et al. is explained supra. However, Ouriel et al. fail to disclose the first and second rings having undulation peaks with a radius of curvature of about 0.025mm to 0.225mm. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a radius of curvature having a range between 0.025mm to 0.225mm, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Claims 3,10-15,17,20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ouriel et al. (2004/0117003) in view of Brown et al. (6776793). Ouriel et al. is explained as before. However, Ouriel et al. fail to explicitly disclose connectors connecting the undulating rings of the stent structure. Brown et al. teach straight or linear connectors **144** to space apart the rings and maintain a distance between the rings. Brown also teaches (Fig. 4b) the connectors **244b** can be an undulating curvilinear member. It would have been obvious to one of ordinary skill in the art to

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incorporate connectors as taught by Brown et al. with the stent of Ouriel et al. such that it maintains a distance between rings and limits foreshortening. It would have been obvious to one of ordinary skill in the art to use connectors to join all ring structures as taught by Brown et al. with the bifurcation stent of Ouriel et al. such that it provides the ability to prevent foreshortening and maintain a distance between rings. Regarding claim 15, any intersection of different structural members form a pivot point or the capability to pivot or bend as a result of the forces placed thereon. Since the stent of Ouriel can be placed in a tortuous vessel, it is capable of pivoting. With respect to claim 17, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a radius of curvature having a range between 0.125mm to 0.225mm, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ouriel et al. (2004/0117003) in view of Orth et al. (5591197). Ouriel et al. is explained as before. However, Ouriel et al. fail to disclose the transition ring has a discontinuous portion. Orth et al. teach (Figs. 3,3A) that a portion of the ring structure of the stent has a discontinuous or interrupted portion **21**. Orth et al. also teach that the discontinuous portion allows for the ring to deform and extend outwardly as a barb, col. 7, lines 61-67. It would have been obvious to one of ordinary skill in the art to utilize a discontinuous portion in the ring as taught by Orth et al. with the stent of Ouriel et al. such that it provides the ability to better secure the device to the vessel.

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Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ouriel et al. (2004/0117003) in view of Sequin et al. (2003/114912). Ouriel et al. is explained as before. However, Ouriel et al. fail to disclose an omega shaped connecting member between the transition ring and wall pattern. Sequin et al. teach (Fig. 8) an omega shaped connector **52** joining stent ring structures. Sequin et al. also teach the omega connector allows for greater elasticity and direction of the portions of the stent structure to bend in a different direction if necessary, paragraph 67. It would have been obvious to one of ordinary skill in the art to utilize an omega connector as taught by Sequin et al. in the stent of Ouriel et al. such that it allows the branch structure to more easily bend.

Allowable Subject Matter

Claims 8,9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Pellegrino whose telephone number is 571-272-4756. The examiner can normally be reached on M- F (7:30-4pm).

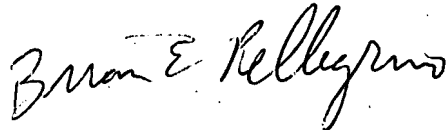
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on 571-272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TC 3700, AU 3738

BRIAN E. PELLEGRINO
PRIMARY EXAMINER

A handwritten signature in black ink, reading "Brian E. Pellegrino", written in a cursive style.